Paramilitary Operations and Safety in the Public Sector

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In the public sector, many different operations occur each day: water production, wastewater treatment, public health analysis, vaccinations, solid waste management, law enforcement, fire protection, emergency medical services and an almost infinite list in between. Due to variances between these classifications and their hazards, some public sector classifications are known as paramilitary organizations, a classification that accounts for the differences in their organizational structures, training programs and other components alongside their risk assessments and hazard controls. While many job classifications and their tasks contain hazards with few unknown variables, paramilitary classifications require real-time situational awareness, recall of training, emotional intelligence and continual improvement of processes to prevent what could be catastrophic losses of personnel, property or community support.

Organizational Structure and Leadership

To provide public services such as law enforcement, fire protection, emergency medicine and public health, a paramilitary structure provides the organizational structure for effective and efficient contingency responses. Distinct levels of command allow for responses to hazards such as fires, disease exposures and violence while mitigating their risks. Hierarchal leadership requires vertical communication, often including organizational structures such as the Incident Command System and the National Incident Management System. This contingency leadership allows for situational awareness, swift recall of training and safe practices continually improved through lessons learned and applied to real-time situations. The leadership structure allows for necessary skill sets to be allocated where needed, while the communication structure allows for timely notifications and the precursor training to all involved allows for safe responses to varied situations. While "stop-work" policies are common in safety management to ensure tasks are not performed without proper preparedness, hierarchal leadership allows for direct orders to enable emergency responses. It becomes a matter of leadership diligence to ensure teams are properly prepared to execute direct orders, and that these orders do not put someone into an unnecessarily unsafe situation (Worden, 2015). While this hierarchal leadership is proven effective in contingencies from major accidents to enemy attacks to hazardous materials releases to fires to pandemics, it alone does not promote continual organizational improvement. To do this, transformational and servant leadership are necessary.

Transformational and Servant Leadership

Transformational leadership allows for lateral communication, open dialogues, unification around shared goals and a team effort towards process improvement (Rehman & Waheed, 2012). A transformational leadership transforms self, individuals and organizations, and servant leadership builds on that by placing greater emphasis on the team's needs before self. Effective leadership combines both transformational and servant leadership. To move towards a transformational

environment, servant leadership allows leaders to dedicate themselves to the improvement of their teams and their professional development that will lead to the leadership's self-replication and continual improvement (Dierendonck, 2011). To do this, emotional intelligence is required, which is the leaders' ability to empathize and develop mutual respect and understanding. Effective leadership inspires the team by providing a coherent vision through rational strategies, empowering teams by being a good steward, providing autonomy, resources and developing a culture of trust to enable their organizations to achieve the goals and realize the vision. This emotional intelligence also benefits communications with the communities served as the general public's roles as bystanders, witnesses, and property owners all cause variable emotions, affecting each interaction with public servants. Abilities to de-escalate situations through social awareness, self-awareness and control, managing emotions, active listening, positive communication, empathy, compassion and understandings of others' perspectives can make huge differences in a paramilitary response to a volatile situation.

Safety Management in the Paramilitary Organization

To achieve high-reliability safety, safety must be integrated into each process and continually reviewed for improvements based on lessons learned (Shrivastava, Sonpar & Pazzaglia, 2009). This includes communication and engagement between team members to develop subject matter expertise. General (Retired) Stanley McChrystal referred to this as a "team of teams" so that each particular functional area had its own group of experts to develop safety protocols (McChrystal, Fussell, Silverman & Collins, 2015). It is also important to acknowledge the role of unions and collective bargaining in paramilitary organizations. In situations where safety requires articulation to city councils or others for budgeting or other needs, unions can play an important advocacy role for the organization (Schlochet, 2014) as long as they do not inadvertently cover for unsafe practices (Weil, 1999). Finally, hazard analyses and risk assessments are required. These are important, as the frequency of hazards such as physical violence, burns, chemical or disease exposures or others can be very high along with very high severities, including deaths (Briefings on Hospital Safety, 2011). Ultimately, these unique hazard analyses, risk assessments and skill sets – including such specialties as biological safety, explosive ordnance safety and other areas not typically included in a safety committee – are what creates the need for a paramilitary organization and the rigor and discipline that comes with them.

Hazard Controls

There are variances in different functional areas regarding safety regulations and national consensus standards. For example, the National Fire Protection Association (NFPA) provides distinct guidance on fire and hazardous materials operations. However, even with specialized guidance, the Code of Federal Regulations 29 CFR 1910 and 29 CFR 1926 (OSHA, n.d.) and the General Duty Clause (OSHA, 1970) are still overarching. While the hierarchy of controls allows for the most effective possible controls and training reinforces each implemented hazard control, none of these controls can be operationally utilized without identifying the hazard and realizing the need for the control in real time. For example, a workplace violence prevention (sometimes as volatile as a "react to ambush" procedure), a hazard communication program (sometimes utilized during a chemical fire (CDC, n.d.)), or an infection prevention and control plan (sometimes utilized during a pandemic) cannot be effectively used if the pending violence, burning chemicals or disease

exposures are not first recognized in real time. For this, situational awareness must be optimized. This can be done using Colonel John Boyd's Observe, Orient, Decide, Act (OODA) Loop.

The OODA Loop

Colonel (Retired) John Boyd, U.S. Air Force, originally developed the OODA Loop for aerial combat. The OODA Loop consists of a theory that whichever opponent has the faster and more precise situational awareness will survive by observing his or her surroundings for hazards and threats; orienting to his or her position, the hazard/threat's position and what can be done to prevent an incident; deciding on the best course of action and then acting on it before an incident occurs (Boyd, 1976). This theory and its accompanying model have been co-opted for use in ground combat, emergency management and law enforcement, and can be adapted for use with any hazard or threat. This provides an extension of hazard control by first implementing the control, providing training on the control, and then training on the situational awareness model needed to identify the hazard and the need for the control in real time. This may apply to law enforcement identifying a suspect and deciding on the safest way to arrest him or her without an incident. It may apply to a firefighter identifying the chemicals inside a structure fire and deciding on how to best fight the fire while preventing chemical exposures. It may apply to an epidemiologist identifying a potentially infectious patient and deciding on when to use isolation protocol, personal protective equipment (PPE) and a respirator to stay safe while working with a patient. Situational awareness is a huge factor in paramilitary operations in the public sector; it creates the opportunity to identify needs for safety before someone is injured or exposed.

Figure 1 – OODA Loop Applied to Disease Exposure Prevention (Worden, 2018).
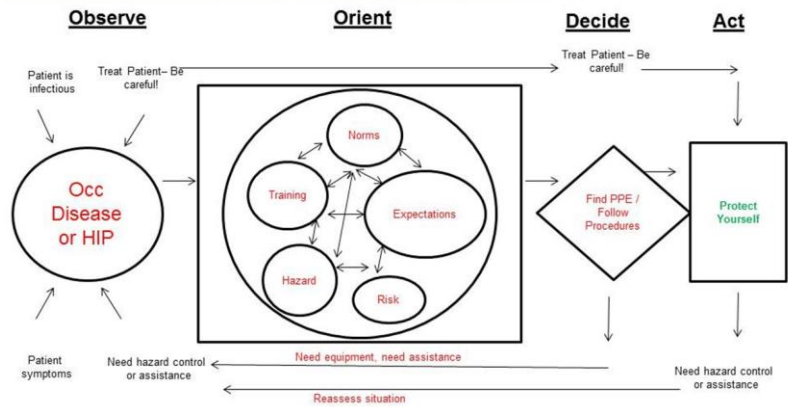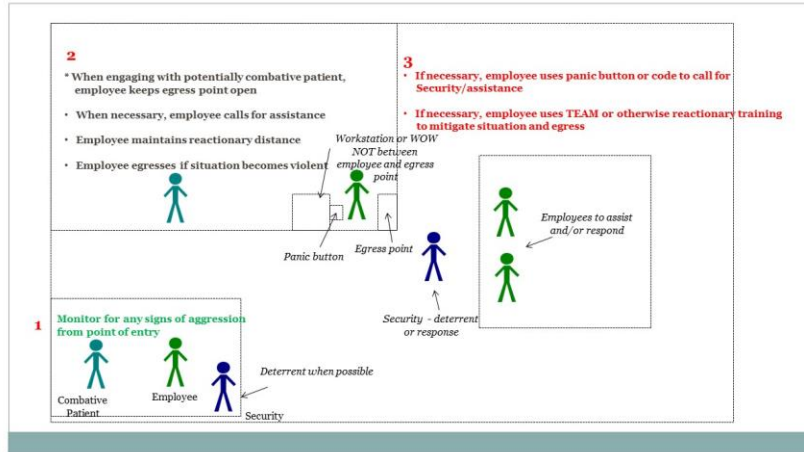Boyd's OODA Loop originally appeared in Patterns of Conflict (Boyd, 1976).

Figure 2 – Situational Awareness Preventing Workplace Violence in a Hospital Setting


Collaboration

Collaboration between paramilitary teams, non-paramilitary teams and communities served is essential. Paramilitary teams have unique expertise and skills but require support to operate. During the COVID-19 pandemic, none of the paramedics, clinicians, epidemiologists or other teams in the field would be able to work safely without the teams working to find and procure necessary respirators and PPE. A fire station with a mold problem could sicken those stationed there, rendering them unable to fight fires; facilities engineers are necessary support in this case. A public health team measuring air quality after a hazardous materials release needs a support team to ensure their equipment is calibrated. Ultimately, it is impossible for any one person or even team to identify, assess and control all hazards. It takes what General McChrystal called a "team of teams" (McChrystal, Fussell, Silverman & Collins, 2015).

Figure 3 – Collaboration Between Functional Areas
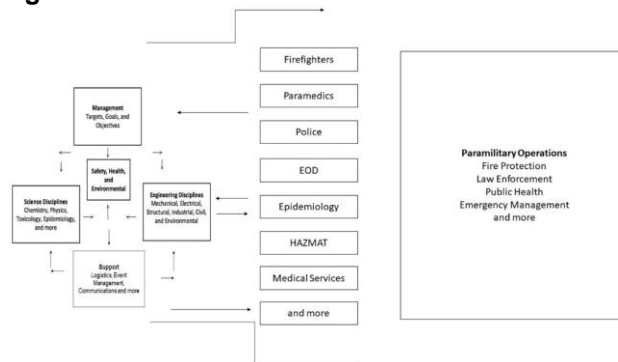
Although safety leadership may not be a paramilitary team member, their consultation can help achieve purposeful partnerships that improve hazard controls. All team members have a role to play in safety.

Figure 4 – Team Roles in Safety
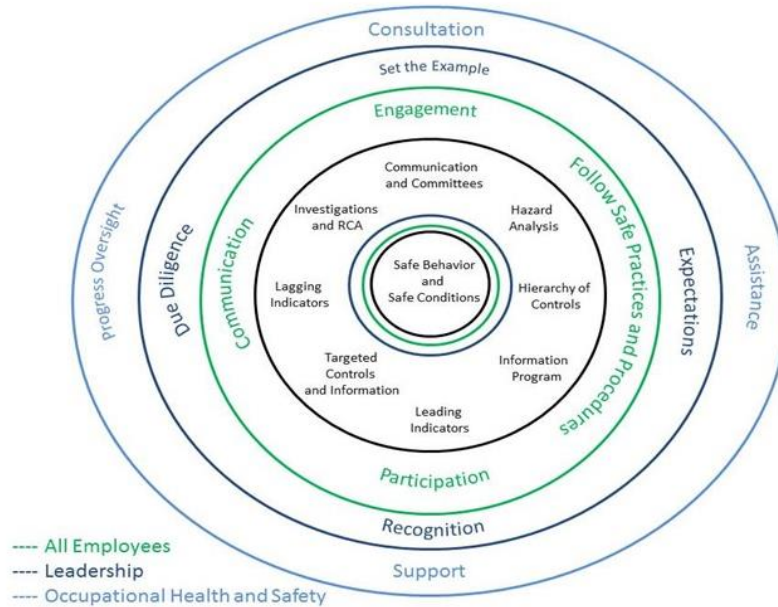
Finally, interfacing with the local community is essential as all operations involve them, their families, their environment and/or their property. Transparency and understanding the consequences of the operations and taking into account the impact of the information are essential to earn public trust and support. Communities need to know that their public servants are there to ethically help (Walter, 2011) and, even with heightened risks, paramilitary teams must know the legal boundaries of their work. General McChrystal (2014) defined this credibility as "Credibility = (Integrity + Proven Competence) + Relationships." This credibility, combined with the emotional intelligence of empathy and mutual respect, along with hazard control, allows for public service while mitigating potential risks.

Leading Indicators and Continual Improvement

Leading indicators such as inspections can ensure proper equipment, training records, facilities maintenance and other safe conditions, while observations can provide proactive intelligence about potential threats such as workplace violence indicators (aggression, verbal threats, raised voices, etc.), disease exposure indicators (symptomology, location, PPE use or misuse, etc.), chemical exposure indicators (proper storage, containment, PPE use, etc.) and more. Also, near-miss reports provide value-added intelligence as to hazards or threats that could have manifested in an injury or exposure but did not; this information can help to improve hazard controls to prevent future occurrences.

Figure 5 – Leading Indicators of Workplace Violence
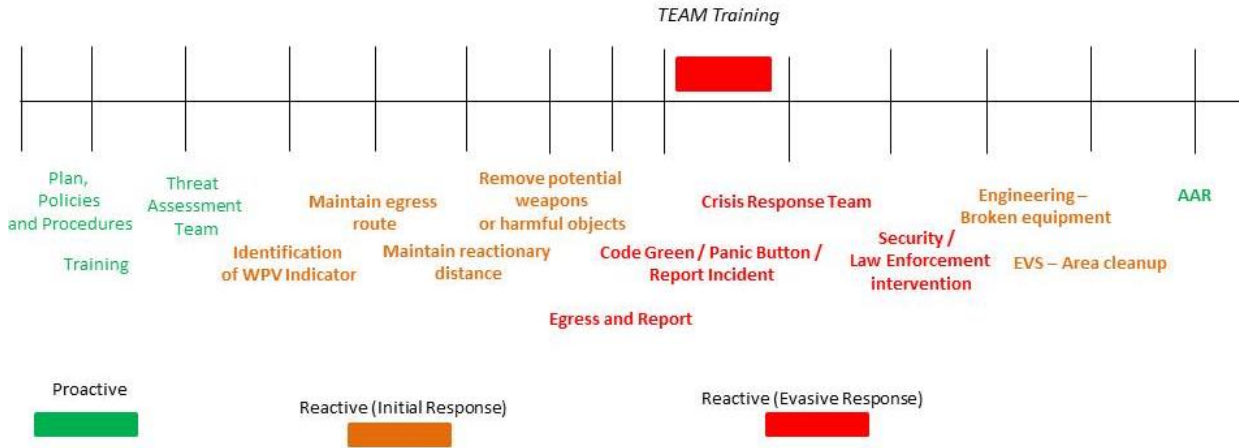
With these leading indicators, improvement in performance and intention versus impact can be measured, and data can be taken back to the team to apply to the hazard analysis and risk assessment for continual improvement of hazard controls and situational awareness. In turn, this will improve safety for the team and improve interactions with the community by providing frequent feedback, thereby building accountability and credibility. From this point, with this continual improvement cycle, safety benefits everyone, even in turbulent, volatile times with dynamic hazards.

Figure 6 – Continual Improvement Cycle

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